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ABSTRACT

The problem was to compare regional high schools including grades 9 to 12, small high schools having the same grades, and other high schools having per-pupil cost comparable to regional high schools in terms of the following criteria: (a) per-pupil expenditures; (b) pupil-teacher ratios; (c) number of different preparations per teacher; (d) scope of course offerings in each major curricular field; (e) ages of teachers; (f) teacher salaries; (g) educational experience of teachers; (h) availability of library and guidance personnel; and (i) educational preparation (degree level) of teachers. Results indicated that per-pupil cost in regional high schools is approximately $100 more than the per-pupil expenditure in small high schools; average pupil-teacher ratios in the 3 types of high schools do not vary greatly; teachers in small high schools average more different teaching preparation than their counterparts in regional and nonregional high schools; course offerings are fewer in the small high school; ages of teachers in the 3 types of high schools are roughly comparable but the salaries are smaller in the small high school; teachers in regional and selected nonregional high schools have the highest level of educational attainment; and guidance counselors and librarians are less likely to be available to students in small high schools. (LS)

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DATA COMPARISONS OF REGIONAL AND SMALL HIGH SCHOOLS

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INTRODUCTION

The advantages and disadvantages of organizing regional school districts have been debated on many occasions by many people. Often such crucial issues as breadth of course offerings, per-pupil costs, student-teacher ratios, degree status of teachers, and other characteristics are discussed within a framework of very limited data. The Division of Research and Development has collected and analyzed certain data which assist in substantiating the case for regionalization.

The following report compares small high schools, regional high schools, and selected non-regional high schools on a variety of aspects of education. One variable, per-pupil costs, has been controlled and equated between the regional and selected non-regional high schools.

THE PROBLEM

The problem was to compare regional high schools including grades 9 to 12, small high schools having the same grades, and other high schools having per-pupil cost comparable to regional high schools on the following criteria: (a) per-pupil expenditures; (b) pupil-teacher ratios; (c) number of different preparations per teacher; (d) scope of course offerings in each major curricular field; (e) age of teaching staffs; (f) teacher salaries; (g) educational experience of teachers; (h) library and guidance personnel; and (i) educational preparation (degree level) of teachers.

LIMITATIONS

For purposes of this study, the small high school is defined as having a graduating class of less than one hundred (100) students. In June 1966, 45 high schools fell into this category. Data from all forty-five schools have been analyzed. Twelve of the regional school districts include only grades nine through twelve (9–12). Most of the others are seven through twelve (7–12) districts. In order to provide valid comparisons and to remove possible bias from the results, it was decided to compare small nine through twelve (9–12) high schools with nine through twelve regional high schools and non-regional high schools which also included grades nine through twelve. Non-regional high schools, which had an average per-pupil cost identical to the regional high schools ($769), were selected for comparison. This enabled the researcher to make fairly valid comparisons among all three types of schools in such areas as educational programs, teacher preparations, student-teacher ratios, degree level of teachers, availability of guidance counselors and librarians and other aspects presented below.

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TABLE I

Per-Pupil Cost

Regional High Schools	Small High Schools	Selected Non-Regional High Schools
$769	$663	$769

It is shown from the above table that the average operating cost per pupil in regional high schools is approximately one hundred dollars more than the per-pupil expenditure in small high schools. This evidence contradicts the argument sometimes used that it costs less to educate secondary school students in regional high schools than in small high schools.

TABLE II

Pupil-Teacher Ratio

Regional High Schools	Small High Schools	Selected Non-Regional High Schools
20.19 : 1	18.54 : 1	21.16 : 1

Table II points out that average pupil-teacher ratios in the three types of high schools do not vary greatly. The highest ratio (21.16 : 1) for the selected non-regional high schools is well within recognized norms.

TABLE III

Different Preparations Per Teacher

Regional High Schools	Small High Schools	Selected Non-Regional High Schools
2.80	3.26	2.52

Teachers in small high schools average more different teaching preparations than their counterparts in regional and non-regional high schools. In the pupil-teacher ratio aspect of teacher load (Table II) faculty members in small high schools compare favorably to other high schools. In the preparation aspect, teachers in small high schools are at a disadvantage.

TABLE IV

Number of Different Courses
Offered in Major Secondary Subjects

	Regional High Schools	Small High Schools	Selected Non-Regional High Schools
English	8.58	6.74	10.05
Mathematics	9.50	8.22	9.32
Science	9.50	7.25	10.05
Social Science	8.41	7.05	9.14
Foreign Language	11.91	6.03	13.09
Music	3.83	3.10	2.82
Art	3.58	1.00	3.05
Industrial Arts	8.50	3.60	8.25
Business	13.25	9.65	15.64

There are important differences in the numbers of different courses offered in small high schools, regional high schools, and the selected non-regional high schools. The major variations are in science, foreign language, art, industrial arts and business.

A perusal of science course titles indicates advanced or specialized courses are not as numerous in small high schools as in the regional and other high schools.

In most cases only two foreign languages are offered in small high schools. It is common for three and four languages, often in five year sequences, to be available to students in the other high schools.

One exploratory art course is available in most small high schools. In the regional and non-regional high schools having similar per-pupil costs, students are often able to elect three or four specialized art courses. In many instances a different art course is available during each of the student's four years in high school.

Table IV shows an average of only 3.60 industrial arts courses in small high schools—less than one per year for four years. However, students attending other high schools are usually able to elect two industrial arts courses during each of their four high school years.

The differences of 9.65 business courses in small high schools and 13.25 and 15.64 in regional high schools and comparable non-regional high schools respectively illustrates lack of opportunity for the development of advanced business skills for students in the small schools. Basic subjects such as typing, shorthand and business machines are generally available in all Massachusetts secondary schools. However, special courses such as data processing, accounting, advertising, and marketing are seldom offered in small high schools.

TABLE V

Number of Different Courses
Offered in Secondary Schools

Regional High Schools	Small High Schools	Selected Non-Regional High Schools
77.06	52.64	81.41

The breadth of courses offered in regional high schools and other high schools of comparable costs are almost never available in high schools which graduate fewer than one hundred students.

While the small high school offers the basic or core secondary school program, there is an indication of lack of advanced courses to meet special interests.

TABLE VI

Average Age, Salary and Years of Experience

	Regional High Schools	Small High Schools	Selected Non-Regional High Schools
Age	36.1	35.6	38.5
Salary	$8,025	$6,597	$9,221
Years of Experience	9.2	7.8	11.4

Table VI indicates ages and years of educational experience of the professional staff among the three types of schools studied are roughly comparable, although the averages are slightly higher in the selected non-regional high schools. However, there is a large variation in average salaries. The higher salaries paid to teachers in regional and non-regional high schools is undoubtedly the result of their greater academic preparation. (see Table VII)

TABLE VII

Highest Level of Educational Attainment

	Average of Highest Level of Educational Attainment
Regional High Schools	10.3*
Small High Schools	9.9*
Selected Non-Regional High Schools	10.4*

*Interpretation: 9.0 Bachelor's degree granted; 10.0 Bachelor's degree plus thirty semester hours or more; 11.0 Master's degree granted; 12.0 Master's degree plus thirty semester hours or more; 13.0 Other secondary level degree or advanced certificate.

An average educational attainment of 10.3 for teachers in regional high schools is interpreted to be above the Bachelor's degree plus thirty semester hours. The 9.9 noted for small high schools reveals an average attainment of slightly less than the Bachelor's degree plus thirty semester hours of credit. The 10.4 for city and town high schools is slightly higher than the academic level of teachers in regional high schools.

GUIDANCE COUNSELORS

Guidance counselors are less likely to be available to students in small high schools than in regional high schools or selected non-regional high schools. In small schools which have full or part-time counselors the average ratio of students to counselor is 340 : 1. However, only forty-four percent of the small high schools employ full-time counselors. Nine percent report only part-time counselors and the remaining forty-seven percent report no counselors.

The ratio of students to counselor in regional high schools is 346 : 1. Although the ratio differs by only a few students from the small high schools, full-time counseling services are available to all students in all Massachusetts regional high schools.

In the selected non-regional high schools the ratio is 360 : 1. While the 360 : 1 ratio is slightly higher in the non-regional schools, personnel involved are full-time, thus contributing to effective guidance services.

LIBRARIANS

Students enrolled in small high schools are less likely to be serviced by a full-time librarian than students in regional high schools or students in selected non-regional high schools. All regional high schools and eighty percent of the non-regional high schools report a full-time librarian, whereas this service is available in only twenty-two percent of the small high schools. Fifty-six percent of the small secondary schools have no librarians on their staff and twenty-two percent report part-time service.

Another statistic is that the average number of librarians per small high school is 0.33, whereas the average number in regional high schools and selected non-regional high schools is 1.00.

SUMMARY

While it is clear that it costs more to educate secondary students in regional school districts, it is also obvious that when compared with programs and services offered in small high schools: (1) a much broader program is available in the regional schools; (2) services of guidance counselors and librarians are more often available; (3) the academic status of teachers is higher; (4) teachers have fewer different preparations; and (5) more qualified teachers are attracted to regional high schools than to small high schools.

The questions which must be answered in communities considering regionalization are whether these benefits to high school children are worth the extra cost.

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